

Replaced By
article 19
and
B1C
9/10/04

CLAIMS

What is claimed is:

1. A bubble cap comprising a cap with at least one slot and a riser, configured with a skirt
5 height of at least 4 cm such that $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 7.5$, and posed such that a liquid fluid and a gaseous fluid flow co-currently upwardly in a space between the riser and the cap.
2. The bubble cap of claim 1, wherein $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 15$.
- 10 3. The bubble cap of claim 1, wherein $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 22.5$.
4. The bubble cap of claim 1, wherein $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 30$.
5. A bubble cap comprising a cap with at least three slots and a riser, configured with a skirt
15 height of at least 4 cm such that $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 7.5$, and disposed such that a liquid fluid and a gaseous fluid flow co-currently upwardly in a space between the riser and the cap.
6. The bubble cap of claim 5, wherein $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 15$.
- 20 7. The bubble cap of claim 5, wherein $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 22.5$.
8. The bubble cap of Claim 5, wherein $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 30$.
9. A bubble cap comprising a cap with at least five slots and a riser, configured with a skirt
25 height of at least 4 cm such that $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}] \geq 7.5$, and disposed such that a liquid fluid and a gaseous fluid flow co-currently upwardly in a space between the riser and the cap.